

*REMARKS**Discussion of Amendments*

The title has been amended to more accurately reflect the claimed invention. With the entry of the present claim amendments, claims 1-7 and 37-39 will be pending. The amendment cancels claim 36, the elements of which have been incorporated into claim 1. Claim 1 also has been amended to recite that the phosphor is for use in a display device. Claims 38 and 39 have been added as directed to embodiments of the invention. Applicants reserve their right to pursue unclaimed subject matter in related applications. No new matter is added by this amendment, and support is found throughout the specification, abstract, and claims as filed. The amendment to the claims is discussed in further detail below in the Discussion of Rejections.

Form 1449

Applicants attach a Form 1449 listing various U.S. patents that appear on the face of U.S. Patent No. 6,699,523, and which have not already been listed on a previous Form 1449 or 892 in the present application. The present application is a division of the application from which 6,699,523 issued. Accordingly, the Examiner should have already considered the references listed on the attached Form 1449, and Applicants respectfully request that the Examiner initial and return a copy of the Form 1449.

The Office Action

The Office Action set forth the following rejections:

1. Claims 1-7, 36, and 37 were rejected on the basis of nonstatutory obviousness-type double patenting as allegedly unpatentable over claims 15-28 of U.S. Patent No. 6,699,523.
2. Claims 1-7, 36, and 37 were rejected under 35 U.S.C. § 102(b) as allegedly anticipated by the Nishio patent (U.S. Patent No. 5,856,009).
3. Claims 1 and 7 were rejected under 35 U.S.C. § 102(b) as allegedly anticipated by the Ranby patent (U.S. Patent No. 4,396,863).

4. Claims 1-7, 36, and 37 were rejected under 35 U.S.C. § 103(a) as allegedly unpatentable over the combined teachings of the Dodds patent (U.S. Patent No. 4,398,119) and the Nishio patent.

Discussion of Rejections

In paragraph 3 of the Office Action, claims 1-7, 36, and 37 were rejected on the basis of nonstatutory obviousness-type double patenting as allegedly unpatentable over claims 15-28 of U.S. Patent No. 6,699,523. The present application is a divisional of U.S. 10/458,624. The Office set forth a restriction requirement in the '624 application. Claims 1-7, drawn to a coated phosphor, were canceled as non-elected invention in the '624 application and process claims 8-35 were pursued, which later issued as U.S. Patent 6,699,523. In view of the restriction requirement and the asserted distinctness of the product and process claims, it is erroneous to issue an obviousness-type double patenting rejection on the product claims over the '523 patent. Consonance of the claims has been maintained, i.e., the line of demarcation between the independent and distinct inventions identified by the Office in the requirement for restriction has been maintained. In view of the foregoing, applicants respectfully request that the obviousness-type double patenting rejection should be withdrawn.

In paragraph 4 of the Office Action, claims 1-7, 36, and 37 were rejected under 35 U.S.C. § 102(b) as allegedly anticipated by the Nishio patent (U.S. Patent No. 5,856,009). The Nishio patent discloses a double layer phosphor coating including first and second coating films. *See e.g.*, the Nishio patent at Fig. 3, col. 4, lines 58 and 64, col. 5, lines 5-12, 20-30, col. 6, lines 16-18. The Office recognizes the double-layer nature of the Nishio coating in the Action at page 3, lines 7-13 (discussing a coating and a second coating). In contrast, the present application claims a single layer phosphor coating. With the presently claimed invention, a continuous, uniform, crystalline structure is provided, dispensing with the need of any additional layer.

In respect to claims 36 and 37, the Office admits that the Nishio patent provides no explicit report as to the thickness of the coating (see Action, top of page 4). The Office alleged that the thickness of a coating resulting from the method disclosed in the Nishio patent could not be more than 50 nm. Applicants have repeatedly pointed out the Office's failure to properly support an allegation of inherent anticipation. *See, e.g.*, Applicants'

September 2005 reply at page 2. The Office is required to provide factual and technical grounds to support an inherency argument. To date, the Office has failed to provide such grounds.

The Nishio patent also fails to disclose the use of the phosphor is for a display device.

Accordingly, the rejection of the claims under 35 U.S.C. § 102(b) over the Nishio patent is improper and the rejection should be withdrawn.

In paragraph 5 of the Office Action, claims 1 and 7, were rejected under 35 U.S.C. § 102(b) as allegedly anticipated by the Ranby patent (U.S. Patent No. 4,396,863). With the inclusion of the elements of claim 36, which was not rejected on this ground, in claim 1, this rejection has been rendered moot.

In making this rejection (and also in paragraph 7 of the Action), the Office again advances an inherency argument and again fails to provide factual and technical grounds to support that argument. The Office does impermissibly point to Applicants' own application for support. The Office alleged that heat treatment is known to cause a coating to become uniform, and then pointed to the specification at page 9, lines 15-23, and alleged that the specification recognized "this known fact." Contrary to the Office's assertions, that passage does not recognize the effects of heat treatment as a known fact. The Office cannot point to Applicants' own disclosure to support an anticipation rejection in this manner.

Accordingly, the rejection is moot and otherwise improper, and should be withdrawn.

In paragraph 6 of the Office Action, claims 1-7, 36, and 37 were rejected under 35 U.S.C. § 103(a) as allegedly unpatentable over the Dodds patent (U.S. Patent No. 4,398,119) in view of the Nishio patent.

The Office argues that it would have been obvious to one of ordinary skill in the art to use the yttrium oxide of Nishio as the coating material in the coating method of Dodds to arrive at the presently claimed invention. Applicants respectfully submit that the Office has failed to make a *prima facie* case for obviousness.

The Dodds patent teaches that red cathode ray phosphors are coated with a vapor deposited layer of cadmium selenide in order to achieve controlled color shifts in the light

output of the phosphors (see abstract). Thus, for example, Y_2O_3 : Eu red-emitting phosphor was coated with CdSSe by vapor deposition (Col. 3, line 66-Col. 4, line 7). The Dodds patent requires that the vapor deposited layer is a color modifying material. Those of ordinary skill in the art would know that yttrium oxide (of Nishio) is not a color modifying material. Accordingly, there would be no motivation or incentive for those skilled in the art to provide a yttrium oxide coating in place of the CdSSe (color modifying) material. Further, even if such a modification is made, the modified material would not have the properties required by the Dodds patent. When a proposed modification would destroy the intended purpose of the prior art, as here, there would be no motivation to combine the references.

Any motivation to combine should only be guided by the impermissible hindsight reconstruction, employing the present invention as a roadmap to pick and choose prior art in an effort to arrive at the claimed invention. Hindsight reconstruction contravenes the statutory mandate of Section 103(a), which requires judging obviousness at the point in time the invention was made. Post-facto analysis is disallowed.

Further, there is no reasonable expectation of success in arriving at the presently claimed invention. The prior art process involves heating the coating material to very high temperatures (1400-1500°C).

Accordingly, the obviousness rejection is improper and should be withdrawn.

The arguments provided above further apply to new claims 38 and 39 as well as the claims as currently amended. Accordingly, it would be improper to extend any rejection to either of the two new claims or to the currently amended claims.

Conclusion

Applicants respectfully submit that the patent application is in condition for allowance. If, in the opinion of the Examiner, a telephone conference would expedite the prosecution of the subject application, the Examiner is invited to call the undersigned attorney.

Respectfully submitted,



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